

REMARKS

In the patent application, claims 1-23 are pending. In the final office action, claims 1-4, 11-16 and 18-22 are rejected, and claims 5-10, 17 and 23 are objected to but would be allowed if rewritten in independent form.

Applicant has amended claims 5, 6, 17 and 23 to place claims 5 -10, 17 and 23 in condition for allowance. No new matter has been introduced. Applicant has also amended claims 11 - 13 to be dependent from claim 6 and amended claims 18 and 19 to be dependent from claim 17. As amended, claims 11 - 13, 18 and 19 are also allowable.

Applicant has further amended claims 1, 14 and 20 to include the limitation that a frequency hopping connection link is established between a first slave and the master device, and between a second slave and the master device so that the frequency-hopping connection link is maintained if the non-frequency hopping connection link is unavailable. The support for the amendment can be found in Figure 1a where the connection links between the master device and the slave devices initially established according to BT1 (p.8, lines 7-9). If the non-frequency connection link between the two involved slave device is not available, the frequency hopping link is maintain (p.14, lines 23-26). No new matter has been introduced.

At section 5 of the office action, claims 1-4, 14-15 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Manny* (U.S. Patent No. 5,696,903) in view of *Souissi et al.* (U.S. Patent No. 6,327,300 B1, hereafter referred to as *Souissi*). The Examiner states that *Manny* and *Souissi* discloses a method and system for establishing a connection link between a master device and slave devices. The Examiner admits that *Manny* fails to disclose a non-frequency hopping connection link, but points to *Souissi* for disclosing a non-frequency hopping link along with frequency hopping link. The Examiner alleges that the combination of *Souissi*'s use of dynamic spectrum allocation for transmission of data and *Manny*'s frequency hopping system is equivalent to the claimed invention.

It is respectfully submitted that *Souissi* discloses a communication system wherein the communication between a master device and one or more slave device is carried out by transmission of data in two types: a first type using Bluetooth 1.0 or BT1 signaling and a second type using Bluetooth 2.0 or BT2 signaling. BT1 signaling typically involves bandwidths that are of

a fixed size, occupying one frequency channel (Col. 4, lines 39-43). BT2 signaling is a high-speed link that utilizes a bandwidth of variable size sufficient for the transmission of data. The link can be dynamically allocated in terms of bandwidth, data rate, modulation or otherwise (Col. 4, line 64 to col.5, line 6). The communication between the master device and the slave device involves a number of signaling steps: polling, requesting, responding and data transfer.

The first data type (BT1 signaling) is used for:

- 1) polling by the master device (Figure 3, element 101, at time slot 0, channel 7; time slot 3, channel 5, for example);
- 2) responding with acknowledgement by the slave device to the polling (Figure 3, element 102, at time slot 1, channel 1; time slot 21, channel 6, for example), sometimes with the suggested spectrum for transmission of data (at time slot 7, channel 10; time slot 21, channel 16); sometimes with a confirmation of its returning to BT1 signaling after transmission of data of the second type (at time slot 15, channel 13; time slot 63, channel 7, for example); and
- 3) sending request by a slave device to the master device (Figure 3, a time slot 8, channels 4-8; time slot 22, channels 7-9, for example).

The second data type (BT2 signaling) used for:

- 1) response by the master device with its acknowledgment of the slave's spectrum request (at time slot 8, channels 4-8); or with its proposed received spectrum (at time slot 10, channels 4-8; time slot 56, channels 1-5); and
- 2) transmission of data of second type by the slave device to the master device (Figure 3, element 103, at time slots 11, 12, channels 4-8; time slots 31, 32, channels 2-6).

Souissi discloses that Bluetooth radio uses a frequency hopping scheme to make the link robust (col. 1, lines 32-36). By definition, BT2 is operated in a non-frequency hopping fashion and BT1 is operated in a frequency hopping fashion. *Souissi* does not disclose establishing a BT2 connection link between two slave devices if such link is available.

In contrast, in the claimed invention, a non-frequency hopping link is established between two slave devices if such link is available.

For the foregoing reasons, claims 1, 14 and 20 are clearly distinguishable over the cited *Mahany* and *Souissi* references.

As for claims 2-4, 15, 21 and 22, they are dependent from claims 1, 14 and 20 and recite features not recited in claim 1, 14 and 20. For reasons regarding claims 1, 14 and 20 above, it is respectfully submitted that claims 2-4, 15, 21 and 22 are also distinguishable over the cited *Mahany* and *Souissi* reference.

At Section 6, claims 11-13, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Mahany*, in view of *Souissi* and further in view of *Foster, Jr.* (U.S. Patent Number 5,528,623, hereafter referred to as *Foster*). The Examiner states that *Foster* discloses a communications system including at least two communications units, each unit having a transmitter capable of transmitting to other units at different power levels and on different frequencies. However, *Foster* does not disclose how frequency hopping and non-frequency hopping are used.

As amended, claims 11-13, 18 and 19 are allowable. As for claim 16, it is dependent from claim 14 and recites features not recited in claim 14. For reasons regarding claim 14 above, it is respectfully submitted that claim 16 is also distinguishable over the cited *Mahany*, *Souissi* and *Foster* references.

CONCLUSION

As amended, claims 1-23 are allowable. Early allowance of all pending claims is earnestly solicited.

Respectfully submitted,



Kenneth Q. Lao
Attorney for the Applicant
Registration No. 40,061

WARE, FRESSOLA, VAN DER SLUYS
& ADOLPHSON LLP
Bradford Green, Building Five
755 Main Street, P.O. Box 224
Monroe, CT 06468
Telephone: (203) 261-1234
Facsimile: (203) 261-5676
USPTO Customer No. 004955